

WHAT IS CLAIMED IS:

1. A bicycle frame, comprising:
 - a main frame, said main frame defining a steering axis of said bicycle frame and being configured to support a front wheel for rotation about said steering axis;
 - an articulating frame configured to support a rear wheel relative to said main frame, said articulating frame comprising a chain stay member and a shock support member, said chain stay member being pivotally supported relative to said main frame and said shock support member being fixed for angular displacement with said chain stay;
 - a shock absorber having a first end and a second end, said first end being pivotally supported at a first axis by said shock support member and said second end being pivotally supported at a second axis by said main frame;
 - wherein said first axis is positioned above said second axis such that a longitudinal axis of said shock absorber slopes downwardly from said first end to said second end.
2. The bicycle frame of Claim 1, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said first axis being positioned behind said crank axis and said second axis being positioned in front of said crank axis.
3. The bicycle frame of Claim 1, wherein said shock support member comprises a first arm and a second arm extending from said chain stay member toward said first axis, said first arm, said second arm and said chain stay member cooperating to form a generally triangular shape when viewed from the side of said bicycle frame.
4. The bicycle frame of Claim 1, wherein said chain stay member is pivotally connected directly to said main frame.
5. The bicycle frame of Claim 1, wherein said articulating frame additionally comprises a seat stay member and a link member, said link member being pivotally connected to said main frame and said seat stay member being pivotally connected to each of said chain stay member and said link member.
6. The bicycle frame of Claim 5, wherein said rear wheel is supported for rotation about a hub axis, said hub axis being defined by said seat stay member.

7. The bicycle frame of Claim 6, wherein said pivotal connection between said chain stay member and said seat stay member is positioned above said hub axis on said seat stay member.

8. The bicycle frame of Claim 5, wherein said rear wheel is supported for rotation about a hub axis, said hub axis being defined by said chain stay member.

9. The bicycle frame of Claim 5, wherein said shock support member defines a derailleur-mount portion configured to support a front derailleur in an operable position relative to a pedal crank assembly carried by said main frame such that said front derailleur is movable along with movement of said chain stay member.

10. The bicycle frame of Claim 1, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said pivot between said chain stay member and said main frame being positioned behind said crank axis.

11. The bicycle frame of Claim 1, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said pivot between said chain stay member and said main frame being positioned a radial distance of less than about 3 inches from said crank axis.

12. The bicycle frame of Claim 1, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said pivot between said chain stay member and said main frame being positioned a radial distance of less than about 2 inches from said crank axis.

13. The bicycle frame of Claim 1, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said crank axis being positioned between about 4 and 12 inches of said second axis.

14. The bicycle frame of Claim 1, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said crank axis being positioned between about 5 and 7 inches of said second axis.

15. The bicycle frame of Claim 1, wherein said first axis is positioned above said second axis in a relaxed position of said articulating frame.

16. The bicycle frame of Claim 1, wherein said articulating frame defines a hub axis, a rear wheel carried by said articulating frame being rotatable about said hub axis, said

articulating frame being moveable relative to said main frame to provide at least 6 inches of vertical movement of said hub axis from a relaxed positioned to a compressed position of said articulating frame.

17. The bicycle frame of Claim 1, wherein said articulating frame defines a hub axis, a rear wheel carried by said articulating frame being rotatable about said hub axis, said articulating frame being moveable relative to said main frame to provide at least 8 inches of vertical movement of said hub axis from a relaxed positioned to a compressed position of said articulating frame.

18. A bicycle frame, comprising:

- a main frame, said main frame defining a steering axis of said bicycle frame and being configured to support a front wheel for rotation about said steering axis;

- a chain stay member, said chain stay member being pivotally supported relative to said main frame at a first pivot axis;

- a link member, said link member being pivotally supported by said main frame at a second pivot axis;

- a seat stay member, said seat stay member being pivotally supported by said chain stay member at a third pivot axis and by said link member at a fourth pivot axis;

- a shock support member, said shock support member being fixed for angular displacement with said chain stay member, said shock support member defining a derailleur-mount portion configured to support a front derailleur in an operable position relative to a pedal crank assembly carried by said main frame;

- a shock absorber, said shock absorber being pivotally supported by said shock support member at a fifth pivot axis and by said main frame at a sixth pivot axis.

19. The bicycle frame of Claim 18, wherein said shock support member comprises a first arm and a second arm extending from said chain stay member toward said first axis, said first arm, said second arm and said chain stay member cooperating to form a generally triangular shape when viewed from the side of said bicycle frame.

20. The bicycle frame of Claim 18, wherein said seat stay member is configured to support a rear wheel for rotation about a hub axis.

21. The bicycle frame of Claim 20, wherein said third pivot axis is positioned above said hub axis on said seat stay member.

22. The bicycle frame of Claim 18, wherein said chain stay member is configured to support a rear wheel for rotation about a hub axis.

23. The bicycle frame of Claim 18, wherein said first, second and sixth pivot axes are defined by a monolithic portion of said main frame.

24. The bicycle frame of Claim 18, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, wherein a radial distance between said crank axis and said first pivot axis is less than about 3 inches.

25. The bicycle frame of Claim 18, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, wherein a radial distance between said crank axis and said first pivot axis is less than about 2 inches.

26. The bicycle frame of Claim 18, wherein a longitudinal axis of said shock absorber passes through said fifth pivot axis and said sixth pivot axis, said longitudinal axis being angled in a downward direction from said fifth pivot axis to said sixth pivot axis.

27. The bicycle frame of Claim 18, wherein said fifth pivot axis is positioned above said sixth pivot axis.

28. A bicycle, comprising:

a front wheel;

a rear wheel;

a main frame, said main frame defining a steering axis of said bicycle frame and being configured to support said front wheel for rotation about said steering axis;

an articulating frame configured to support said rear wheel relative to said main frame, said articulating frame comprising a chain stay member and a shock support member, said chain stay member being pivotally supported relative to said main frame and said shock support member being fixed for angular displacement with said chain stay;

a shock absorber having a first end and a second end, said first end being pivotally supported at a first axis by said shock support member and said second end being pivotally supported at a second axis by said main frame;

wherein said first axis is positioned above said second axis such that a longitudinal axis of said shock absorber slopes downwardly from said first end to said second end.

29. The bicycle of Claim 28, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said first axis being positioned behind said crank axis and said second axis being positioned in front of said crank axis.

30. The bicycle of Claim 28, wherein said shock support member comprises a first arm and a second arm extending from said chain stay member toward said first axis, said first arm, said second arm and said chain stay member cooperating to form a generally triangular shape in a side, elevational view of said bicycle.

31. The bicycle of Claim 28, wherein said chain stay member is pivotally connected directly to said main frame.

32. The bicycle of Claim 28, wherein said articulating frame additionally comprises a seat stay member and a link member, said link member being pivotally connected to said main frame and said seat stay member being pivotally connected to each of said chain stay member and said link member.

33. The bicycle of Claim 32, wherein said rear wheel is supported for rotation about a hub axis, said hub axis being defined by said seat stay member.

34. The bicycle of Claim 33, wherein said pivotal connection between said chain stay member and said seat stay member is positioned above said hub axis on said seat stay member.

35. The bicycle of Claim 32, wherein said rear wheel is supported for rotation about a hub axis, said hub axis being defined by said chain stay member.

36. The bicycle of Claim 32, wherein said shock support member defines a derailleur-mount portion configured to support a front derailleur in an operable position relative to a pedal crank assembly carried by said main frame such that said front derailleur is movable along with movement of said chain stay member.

37. The bicycle of Claim 28, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said pivot between said chain stay member and said main frame being positioned behind said crank axis.

38. The bicycle of Claim 28, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said pivot between said chain stay member and said main frame being positioned a radial distance of less than about 3 inches from said crank axis.

39. The bicycle of Claim 28, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said pivot between said chain stay member and said main frame being positioned a radial distance of less than about 2 inches from said crank axis.

40. The bicycle of Claim 28, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said pivot between said chain stay member and said main frame being positioned between about 4 and 12 inches of said second axis.

41. The bicycle of Claim 28, wherein said main frame is configured to support a pedal crank assembly for rotation about a crank axis, said pivot between said chain stay member and said main frame being positioned between about 5 and 7 inches of said second axis.

42. The bicycle of Claim 28, wherein said first axis is positioned above said second axis in a relaxed position of said articulating frame.

43. The bicycle of Claim 28, wherein said articulating frame defines a hub axis, said rear wheel being rotatable about said hub axis, said articulating frame being moveable relative to said main frame to provide at least 6 inches of vertical movement of said hub axis from a relaxed positioned to a compressed position of said articulating frame.

44. The bicycle of Claim 43, wherein said articulating frame provides at least 8 inches of vertical movement of said hub axis from a relaxed positioned to a compressed position of said articulating frame.